

ROCKS and MINERALS

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PETER ZODAC

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Contents for May, 1943

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ROCKS and MINERALS

PEEKSKILL, N. Y., U. S. A.

The official Journal of the Rocks and Minerals Association

Chips from the Quarry

SHOULD CLUB FIELD TRIPS BE LIMITED TO SMALL GROUPS?

Mr. Lu Watters, a member of the R. & M. A. from San Francisco, Calif., (now in the U. S. Navy) brings up a matter which is of vital importance to all clubs. Writes he:

"I have always enjoyed ROCKS AND MINERALS but now I do more than ever as it helps me to dream of field trips which I cannot readily take in these times.

"Speaking of field trips, I have a rather touchy point to bring up. I think that all mineral societies should go on their field trips in small groups (not more than 3 or 4 persons) instead of large packs or the first thing we know we will be barred in the same way that deer hunters are barred all over the country.

"Whenever large groups of people roam over private, state, or government property (even if they have secured permission) they are always more conspicuous and unknowingly more bothersome to the owners than when in the same places in smaller sized parties.

"In writing about this matter I hope I am not giving the impression that I am against mineral societies and club trips; on the contrary I am all for them. I am a member of one society and realize all mutual benefits, etc.

"I hope that this matter can be brought up in some way without offending anyone. The subject is of vital importance to all those interested in future field trips".

We believe Mr. Watters' suggestion should be given much thought and study before planning future trips and especially to restricted areas. Many property

owners are peculiar individuals who, though they may give permission to groups, may close their premises to collectors on some slight provocation. It is best not to irritate them in anyway.



It might also be a good idea for 50 or more collectors to split up into six or more groups, each to visit a different locality, than for all of them to visit one common locality. In this way they would cover more territory. What do you think of the idea?

Peter Zodac

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ROCKS and MINERALS
ASSOCIATION))

Whole No. 142

MINERALOGICAL PHOTOMACROGRAPHY WITH KODACHROME FILM

By JAY T. FOX

Fox Museum of Natural History
Seaford, L. I., N. Y.

The general practice of mineral photography for the past century has been largely restricted to the black and white process, which performs well with respect to line and shape, but renders colors only in monochromatic tones. Simplified processes of color photography have of late been eagerly accepted by the majority of scientific photographers because of the true tonal reproductions of the original. Minerals are an ideal subject to photograph.

Actual experiment with many other color processes has proven to me that Kodachrome K-135A film when used with the proper light source for photomacrography, produces the truest color rendition possible.

The camera, popularly used for recreation, now supplies the most reliable means of recording facts and conditions. The miniature camera has a definite place in the work of a mineralogist. The use of true color transparencies of minerals has done much to assist in the study of mineralogy. Black and white photographs are satisfactory to some degree for drab colorless minerals like the Calcites, Galenas, Stibnites, etc., but where the indescribably beautiful array of colors are present in mineral combinations such as Azurite on Malachite, Realgar associated with Orpiment, Tourmaline in matrix, etc. Kodachrome transparencies are a revelation.

Kodachrome film is composed of three superimposed light sensitive layers. Each selectively sensitized to one of the three primary colors; red, green and blue. The layers are so thin that their total thickness scarcely exceeds that of the emulsion layer of a black and white film. No filters or accessories are required for average conditions. The final image is so balanced in color that the Kodachrome transparency when projected with a high-efficiency tungsten lamp, resembles in color the original mineral as seen by the eye. Thus, with this process, sharp images of fine color and extreme resolution of detail are assured. The Eastman Kodak Company has established laboratories for the processing of Kodachrome film and the cost of this is included in the initial purchase price of the film.

Success in Kodachrome photography of cabinet size minerals largely depends upon the accuracy of exposure. The Kodachrome process is a reversal one, which means that the greater the exposure, the lighter the finished transparency will be. When over exposed, the colors appear washed out, when underexposed, they appear too dark, even black.

Photomacrography differs from Photomicrography in this respect: a Photomacrograph is a magnified photograph of an object as seen with the unaided

eye; whereas, a Photomicrograph is a photograph of a microscopic object. For the former, lens extension tubes are inserted between the camera and the lens, for the latter, the camera, minus the lens, is attached directly to a microscope. (See R & M June, 1941)

WORK TABLE

A 15"x30"x1" thick black felt covered table top is mounted upon a sturdily constructed three legged cast iron support. Each leg is fitted with a ball-bearing caster permitting full mobility. The top can be raised or lowered by means of an elevating gear or massive adjusting screw to give a variety of available heights for comfortable working positions.

CAMERA SUPPORT

The camera support must be rigid and not subject to any vibration. A most suitable one consists of a table clamp into which slides a vertical pillar 1" in diameter 10" long. This is adjustable in height and can be rigidly locked in place by means of a winged nut at the table clamp. A special right-angled fitting is provided, the vertical portion of which moves up and down upon the vertical pillar. By tightening a set screw it can be set at any desired height. The horizontal part of the aforementioned fitting accommodates a rod that supports or carries the lighting equipment. On the end of this rod is fastened a ball-socket tripod head that allows a single floodlight and reflector to be tilted at any angle and locked securely in any position.

On this horizontal rod is also clamped a synchronous motor-driven electric timer for second and split second exposure timing. This timer automatically controls the turning on and shutting off of the floodlight, thereby assuring exact duplication of results. This fact I have determined by repeated experiments, once the exposure factor is known. The floodlight is plugged into the side of the timer, which in turn is connected to the 110 volt 60 cycle source of electrical supply. On top of the vertical pillar is mounted a Gearmaster Tripod Head. With this precision geared mechanism, through delicate and accurate adjustments,

the camera can be horizontally rotated the full 360 degrees; also through precision gears the camera can be tilted and locked in the vertical plane at any angle. This support is extremely rigid, yet it provides free movement of the camera in every direction. In designing this support I had two thoughts in view, ultra compactness and simplicity.

CAMERA

When assembling this photomacrographic outfit, I was primarily concerned with the type camera to employ. I judiciously chose the Kine-Exakta, an ultra-precision built miniature camera of wide range. (For full description of camera see R & M, June, 1941) In this sort of work, light metal extension tubes are placed between the lens and camera, serving the same purpose as the extra long bellows do on the larger cameras. These tubes come in various lengths, principally 12-30-60 and 90mm and can readily be attached end to end in any combination to give the desired magnification. Extension tubes permit sharp focusing to be obtained at distances nearer than the lens alone is capable of doing. The ease with which accurate focusing is managed places the single lens reflex camera in a class by itself; especially for Photomacrographic work. I prefer an Exakta F-3.5 (2"-50mm) anastigmat lens in a helical focusing mount. When used with a combination of extension tubes, almost any size mineral photograph can be obtained. The following tubes when used with the 50mm lens will give:

12mm extension tube—reduction of	4:1
30mm " " " "	1.5:1
42mm " " " "	1.2:1
60mm " " " Magnification "	1:1.2
72mm " " " " "	1:1.5
90mm " " " " "	1:1.8
102mm " " " " "	1:2
150mm " " " " "	1:3
192mm " " " " "	1:3.85
240mm " " " " "	1:5
300mm " " " " "	1:6

Where greater magnification than 2 to 1 is required I prefer to use my Photomicrographic outfit. (See June, 1941, issue of R & M magazine). However for those who are not so equipped, this outfit will produce fine results in photo-

graphing Micro Minerals in their 1"x1" paper boxes.

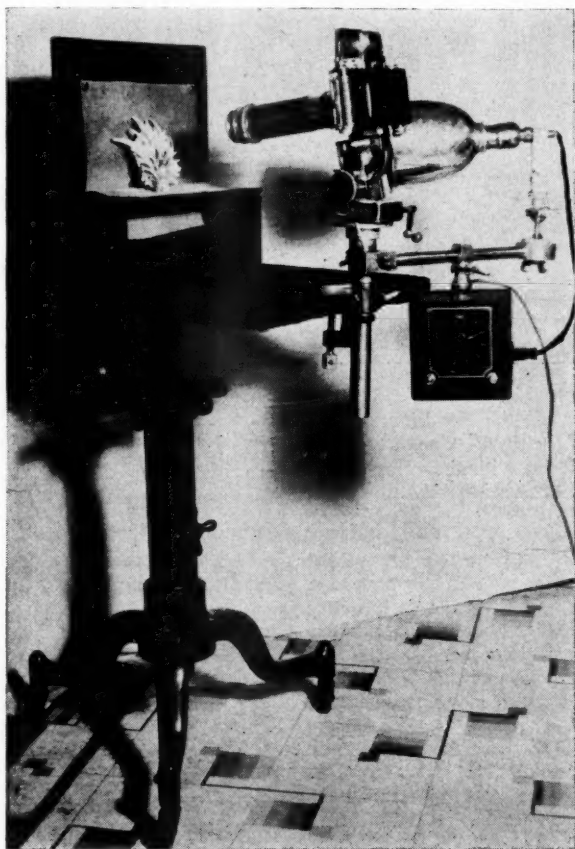
EASEL AND BACKGROUNDS

I constructed a wooden easel and platform with a backboard 12"x12" having two (2) 3"x3" legs upon which rests a removable specimen platform 3"x12". Both easel and platform are painted a dull black. For backgrounds I use an array of some twenty or more pastel shades of velvet. These are held in place by thumbtacks and can be easily changed. I always endeavor to select the most complimentary background color, keeping in mind to choose one of a subdued nature. In some cases to give the mineral an ap-

pearance of being suspended in mid-air, I support it on a piece of polished plate glass. The advantage of this arrangement is that shadows are entirely eliminated.

TECHNIQUE

Two things to guard against when taking Kodachrome photographs of minerals: flickering of lights and camera vibration. Either of these untoward circumstances will ruin what might otherwise prove to be a good transparency. The following will explain the steps involved: Place the mineral upon the platform and select a suitable velvet background. One #1 Floodlight (balanced



Complete Photomacrographic Unit

in color temperature for K-135A Kodachrome Film) is turned on to provide adequate illumination. It is adjusted to light the specimen properly, then locked in place by means of the set screws. The next step is to rotate the camera into position with the aid of the Gearmaster tripod device until the image appears on the ground glass screen perfectly centered. The easel holding the specimen is then manually moved backward or forward to bring the mineral into approximate focus. Next, place the second magnifier against the ground glass screen to get the sharpest definition possible and extreme resolution. This hair-line sharpness is achieved through the use of the helical focusing mount of the lens itself. The reflected image in its full brilliance of color continues to be visible on the ground glass screen until the very instant of exposure. Extreme accuracy in focusing is an absolute pre-requisite of success.

EXPOSURE

When you are ready to make the exposure, the floodlight is extinguished and the camera lens stopped down to F-16. The camera shutter is set as for a time exposure and the shutter is tripped by flexible cable to prevent any jarring of the camera, to the open position. The exposure is now made by the synchronous timer which automatically turns on and shuts off the floodlight at the predetermined setting. The actual exposure time varies with the color of the mineral specimen being photographed,

the length of the extension tubes being used, the color of the background, etc. After the synchronous timer turns the floodlight off, the shutter can be tripped manually closing same. The film is then moved to the next frame and you are ready for the next photograph.

ULTRA VIOLET ILLUMINATION

Many beautiful color transparencies can be obtained by substituting an Ultra Violet bulb for the #1 Flood, when photographs are desired of minerals that are sensitive to Ultra Violet. The only difference in technique is:—a reflector with a dull matte surface should be used instead of a highly polished one and a much longer exposure time given than with the #1 Floodlight. As focusing is not the best with Ultra Violet due to the faint amount of visible light, it is suggested that preliminary focusing be done with the #1 Floodlight and the actual photographing by the Ultra Violet light. The approximate increase in exposure time will be somewhere between 100 and 150 times the time required for photographs taken by floodlight.

References:

- Photographing Small Minerals in Color—By B. M. Shaub. May, 1940. *Photo Technique Magazine*.
- Photomicrographic Technique—By Jay T. Fox. June, 1941. **ROCKS AND MINERALS**.
- Biological Photomicrography—By Jay T. Fox. June, 1943. *Biological Photographic Assoc. Journal*.

Editor's Note: It is unfortunate that we are unable to reproduce in this issue the beautiful mineral photographs in color that Mr. Fox submitted with this article.

All Field Museum Officers Re-elected

Stanley Field has been re-elected president of Field Museum of Natural History, (Chicago, Ill.) by the institution's board of trustees, and has begun his thirty-fifth consecutive year of service in that office, to which he first acceded in 1909, it was announced by Orr Goodson, acting director.

The other officers serving at the end of 1942 were also re-elected. They are: Col. Albert A. Sprague, first vice-president; Silas H. Strawn, second vice-president; Albert B. Dick, Jr., third vice-president; Col. Clifford C. Greg, secretary; Mr. Goodson, acting secretary and acting di-

rector; and Solomon A. Smith, treasurer and assistant secretary.

Other members currently serving on the board of trustees are Lieut. Commr. Lester Armour, Sewell L. Avery, W. McCormick Blair, Leopold E. Block, Boardman Conover, Walter J. Cummings, Howard W. Fenton, Lieut. (S. G.) Joseph N. Field, U. S. N., Marshall Field, Samuel Insull, Jr., Charles A. McCulloch, William H. Mitchell, Lt. Col. George A. Richardson, Brig. Gen. Theodore Roosevelt, Albert H. Wetten, and John P. Wilson.

X-RAY DIFFRACTION PROVES CHINESE SNUFF BOTTLE IS BLACK JADE

An X-ray diffraction analysis by experts of the General Electric X-Ray Corporation recently meant the difference between \$25 and about \$1,000 in the value of an ancient Chinese snuff bottle.

The analysis proved that the three-inch bottle, brought from the Orient some years ago by Julius Bensabott, Chicago collector and importer, was rare black jade and not common agate as some jewelers believed.

Because of the extreme rarity of the type of jade, none of the usual experts could prove whether the bottle was jade or agate. As a last resort, Mr. Bensabott, who had just sold the item to a friend, took it to the Field Museum which referred him to the G. E. X-Ray Corporation's diffraction laboratories in Chicago.

X-ray diffraction is the only means of positively identifying a substance by a study of its crystalline nature. The pattern resulting from the diffraction of a narrow beam of X-rays by a crystalline structure is recorded on a piece of photographic film. The pattern is characteristic of this substance only. As a

result, G-E diffraction engineers have a means of "finger-printing" all crystalline materials.

When the unique snuff bottle was brought to the plant, Jack Wilson and Byron Ellis, who graduated this year from the Illinois Institute of Technology, set to work taking its "finger-prints". This was done by making diffraction patterns in a back-reflection camera with a new G-E unit. These patterns compared exactly with other patterns which were known to be jade and thus the true value of the bottle was established.

But even more amazing than proving the fact that the bottle was of true jade, Wilson and Ellis were able to prove, scientifically, why the jade was black and not white or green as is customary. Certain extra lines on the patterns were compared with those of manganous and titanium oxide. When these were found to check, the experts had sufficient proof that the bottle was actually black jade, since infiltrations of these oxides into the basically white jadite rock would account for the black color.

KUNZITE IN MATRIX

Many fine loose crystals of the transparent lilac variety of spodumene, known as kunzite, from California localities, may be seen in museums, private collections, and in dealers' stocks. But did you ever see one in matrix? Matrix specimens are extremely rare!

John A. Grenzig, the well-known mineral dealer of Brooklyn, N. Y., had in his collection a kunzite crystal in matrix. A brief description of it is as follows:

The kunzite is cemented in a mass of compact, fine-grained micaceous material which also includes cleavelandite, tourmaline, and lepidolite. The whole specimen is $3\frac{1}{2} \times 2 \times 1\frac{3}{4}$ inches in size with a kunzite about $\frac{3}{4} \times \frac{1}{2}$, a smaller white spodumene, and several impressions of

other departed kunzites. The locality is Pala, Calif.

The specimen was recently sold out of Mr. Grenzig's private collection to the American Museum of Natural History, New York City.

(Mr. Grenzig obtained his most interesting specimen many years ago when Dr. Isaac Wyman Drummond, the noted jade collector, had to get rid of his mineral collection in order to make room for more jades. There were a lot of fine specimens in that collection and Mr. Grenzig obtained a number of them. Dr. Drummond's very fine jade collection has long since been acquired by the American Museum of Natural History and is now on display in Drummond Hall).

THE PEKIN QUARRY AT LOCKPORT, N. Y.

By PAUL E. KILLINGER

120 W. Winspear Ave.

Buffalo, N. Y.

Lockport, N. Y., is world famous for its fine dolomite, calcite, and other minerals. It is a city of about 25,000 population situated in the western part of the state (in about the southern part of Niagara County). I have often read articles on the city and its surrounding territory but never one which carried a detailed description of the main mineral locality, the Pekin Stone Quarry, situated about a mile west of the city.

To reach this important locality, assuming you are driving north from Buffalo on the State Highway (N. Y. 263), make a left turn just before reaching the bridge across the Erie Canal (near the southern end of Lockport). You drive past some large piles of limestone taken from the canal bed—these piles sometimes furnish fair specimens. A right turn across the canal and a left turn on the other side and the quarry is unmistakable on the right—the road leading into it being this side of the power station.

Permission for entering the quarry should be requested at the office and it is usually granted (unless a blast is to be set off) with the proviso of not hindering operations.

The quarry is a huge working being about 800 yards long, 500 yards wide, and averaging about 25 yards in depth. It is, of course, a limestone quarry.

The layer of limestone richest in dolomite-calcite cavities and other minerals is a very crystalline strata extending from the rim down to a depth of about 10 feet. The north and south walls of the quarry are the most prolific for nice specimens; the southern end being worked at present. I think that it will be years before the north end will again be excavated as the surface soil at the south end has been stripped for some 200 feet or more.

The best specimens at present are to be found in a sort of intruded strip of faulted limestone running across the left

corner of the quarry at about a 45° angle. This strip, although comparatively thin, is of unknown width; it is highly crystalline and is so full of cavities as to be termed "rotten". The largest cavity I have yet found I discovered last summer and measured about 5x4x2½ feet. This cavity contained some large chunks of limestone beautifully covered with small calcite crystals and pearly, whitish to pinkish, saddle-shaped dolomite crystals. Most of the cavities occurring in the quarry are considerably smaller, grading down to those of only an inch in depth. I have obtained from these cavities scalenohedral and nail-head calcites, pink and white dolomites, massive gypsum, selenite, anhydrite, and more rarely, celestine.

Some Minerals of the Quarry

The dolomite generally occurs in two distinct types, first, a friable encrustation on limestone, the crystals usually being quite loosely cemented to the matrix and of small size; second, pink or white dolomite crystals occurring in relatively small cavities, the crystals, however, being heavily set, well formed, and sometimes as large as a ¼ inch across.

The calcite occurs in many forms and in varying degrees of crystallization. The largest number of crystals are found lining cavities and varying from ½ to 2 inches in size. This type is fairly well crystallized and of translucent yellow or amber color. A second form commonly found are large (1 to 2½ inches) imperfectly formed crystals with a sort of ribbed structure reminding one of a pine tree with its limbs turned towards its top. The third most common form are cloudy white crystals (covering matrix) which in large specimens are quite showy. Doubly terminated crystals are not uncommon, are found associated in many different ways, and vary in length from ¼ to 2 inches.

Really good selenite specimens are fairly uncommon although pockets of selenite are common at the freshly blasted face of the quarry. These specimens are usually water-soaked, badly splintered, and iron stained. The best specimens are found after a long dry spell or from the more unusual pockets found at a lower level in the quarry.

Massive, white, granular gypsum is common and it occurs at various levels throughout the quarry. One very unusual specimen I chiseled out only a few weeks ago is a large lump of massive gypsum enclosing several selenite crystals. In my three years around the quarry I have never found or known anyone who found such a unique specimen.

Last summer I was unusually fortunate to notice a large piece of limestone covered with two radiating masses of anhydrite crystals about 4 inches thick. This rock was probably saved from destruction mainly by its unusual appearance. I was

able to chisel off two large pieces together with many smaller pieces; but as a whole, the mass was ruined for specimens of any size because it had been badly cracked by the blast that loosened it. This was the largest mass of anhydrite I have ever found here or heard of being found.

Celestite is very rare at Lockport. I have been fortunate enough to find three specimens, one of which is well crystallized.

In closing I would like to mention that the workman at the quarry are very cooperative, often leaving choice specimens they have picked up, lying about for the next mineralogist that is lucky enough to chance upon them.

There are numerous other rock piles and pits in the vicinity but these are so weathered and have been gone over so many times that it is usually a waste of time to bother with them.

An Interesting Label

Kunzite,¹ the lilac gem variety of spodumene, was discovered by Fred M. Sickler, on June 8th, 1901, at Pala, Calif., and named after one of America's most noted gem experts, Dr. George F. Kunz (now deceased), of New York City.

¹ How kunzite was discovered. *The Mineral Collector*, March, 1904, p 1.

When these fine crystals became available to collectors, over 40 years ago, John A. Grenzig, of Brooklyn, N. Y., obtained some for his collection. The labels which accompanied the crystals gave so much interesting information that one of them is herewith reproduced—exact size and wording.

KUNZITE (VARIETY OF SPODUMENE) PALA, CALIFORNIA

PROPERTIES

Responds to Radium, Actinium, Roentgen and Ultra-Violet Rays. It is thermoluminescent and pyro-electric. Becomes Radescent when mixed in powdered form with Radium; becomes incandescent when this mixture is slightly heated and phosphorescent by passing a faradic current through it.

EIMER & AMEND

NEW YORK

PROSPECTORS; PAST AND PRESENT

By FRANK H. WASKEY

Whether we of America can count twenty, forty or seventy years, "few and evil"; in our childhood we read lamentations on the passing of the Passenger Pigeon, the Great Auk, the Labrador Duck and other of our Avian heritage.

The last two decades have nearly witnessed the passing of another "bird". I refer to that optimistic, persistent and tradition says; be-whiskered biped, the Prospector.

No easy steps they were from Dahlenega to the Mississippi Valley's lead and zinc and on behind a bull team or around the Horn to Calaveras. Thence eddying back to the Comstock, Leadville, the Black Hills and Alder Gulch.

Who can count the bearded throng that pressed ever North and West to the Siskiyou, Jacksonville, the Caribou, Cassiar, Hootalinqua, Klondike, Nome. Suffice it to say that three generations gave of their best to follow the lure of "color".

And that breed needed little in the way of equipment. And always, it seemed, there was the Trading post to supply that little. Sometimes it was on the back trail, but often well down on the Big River over the next Divide. For the aborigine and the white trapper with their stacks of beaver pelts were always a jump ahead of the man with pick and pan. And nearly always the settling country afforded some way of making the necessary grubstake.

Alaska, the Prospector's last continental stronghold, dealt him a solar plexus that day the great fleet of Yukon stern-wheelers started to fire their boilers with California crude oil. No more grubstakes to be made cutting cord wood for the 'Sarah' or the 'Isom' during the long winters. No more hitting for the hills with the first spring days, or at the latest as soon as the ice had gone from the side streams.

On the contrary "shoveling in" on some other fellow's ground when he should have been poling up some virgin

river, hardy souls into the white spots on the maps of Alaska and Canada.

By 1940, again the lengthening shadows of war, the piling up of a great share of the world's gold in durance vile at Fort Knox, a host of concomitant evils; "men's hearts failing them for fear"; all combined to make it appear that the Prospector no longer was needed in our Country's economy.

And then; Whist, sure a new phrase was on the printed page in the air, "Strategic Minerals" and "Stock piles".

Dawned too, on the Powers that be, the stern necessity of searching out and soon, the Nation's own unfound stores of Tin, Manganese, Mercury, Tungsten, Chromite, Antimony and what have we hidden in the hills.

And so once again, there is a place for the type of man with a nose for "indications" and the will to sup from the humble bean pot, and mayhap "Siwash it" or as the French more poetically phrase it "Sleep a la belle etoile".

True today's prospector travels to his chosen field in a plane, and not ploddingly at the rump of a burro, or toiling on a Gee pole.

The pan also is supplemented in many instances with the fluorescent lamp, the magnetometer or other geophysical "doodle bug".

But the man with the means and the training to use these present day helps must also possess the stamina, the resourcefulness, the instinctive feel for minerals that made Caribou Bill Dietering, John Erickson, (The Lucky Swede) or Dan McCarthy names to conjure with; and to follow in the days gone by.

It is probable that of the present day crop of prospectors, many acquired their first love for the search for Nature's treasures as amateur collectors of "Rocks and Minerals" and it is to be hoped that more, with this valuable first aid to prospecting success, may be able to respond to our Nation's need.

Meanwhile, Collectors young and old,

permit this near fossil to say: Continue your satisfying studies; know the joy if you may of finding your specimens in the field. If that may not be your privilege, then may you garner "treasures new and

old" by exchange with or purchase from your fellow collectors.

And may it be that each of us may find the Biblical "Pearl of great price" and claim the promise of a "white stone . . . and in the stone a new name written".

A VACATION SUGGESTION

By R. F. HENLEY

San Francisco, Calif.

Early in 1942 I was told that the Director of the Y. M. C. A. boys' camp wished to induce some outdoor hobbyists to visit the camp and get the boys interested in things to be seen or found outdoors. As the rationing of rubber was then imminent, I thought the camp would be a good place for me to spend my vacation and so offered my services.

To get the boys interested in minerals, my approach would be from the cutting and polishing angle. So I had the Director take my lapidary equipment, consisting of three laps, a diamond saw, and two grinding wheels, and also a large amount of cutting material, to the camp in his trailer. This equipment I set up under some aspen trees.

The experiment was a huge success as I had a group of boys around me all the time—keeping me busy sawing slabs for them to grind and polish. All of the little fellows wanted to make a ringset or something for "Mama"; the older boys wanted to make something, too, but not for "Mama"! One of the latter almost made me ashamed of myself by the excellent job that he turned out with a Montana agate on his first attempt.

It turned out to be a fine outing for me and also the source of making new friends as well as doing a bit of good for the boys. I am suggesting that more of our fraternity might do something like this now that we are being restricted in our travels.

A LETTERED SPECIMEN FROM UTAH

On page 276 of the August, 1942, issue of ROCKS AND MINERALS, we announced that A. J. Alessi, the popular mineral dealer, of Lombard, Ill., had a most interesting specimen from the famous mercury mines of Mercur, Utah. The specimen had a perfect V (of golden-yellow orpiment) embedded in calcite.

Mr. Alessi has another lettered specimen, also from the mercury mines of Mercur, Utah. This is a $2\frac{1}{2} \times 2\frac{1}{2}$ inch specimen consisting of white cleavable calcite, massive milky quartz, red realgar, and small amounts of yellow orpiment.

The larger part of the specimen is coated with a dull black earthy incrustation. In the very center of the specimen, in the uncoated cleavable white calcite, is a bright red C. This C is one inch high and $\frac{1}{8}$ inch wide, and is, of course, realgar. It stands out distinctly against the white calcite and the black background.

The first specimen, with the V, was titled "V for Victory". Now C has been found, the third letter of the word. Will Mr. Alessi find more letters so as to complete the word V i C t o r y? We hope so!

Brannock Graduates From V. P. I.

Kent C. Brannock, who has had a number of interesting articles on southern localities printed in ROCKS AND MINERALS, was graduated from Virginia Polytechnic Institute,

Blacksburg, Va., on Feb. 27, 1943, with a B.S. degree in Chemistry. Mr. Brannock is now connected with the Kodak Research Laboratory in Rochester, N. Y.

MINERAL PAPERS

By ROY A. REDFIELD

"Mineral Supply House," Spokane, Wash.

3. The Mineral Hobby

The nicest thing about the mineral hobby or any other hobby is that you don't have to pursue it.

Suppose that gracious being in the household whose moral authority you cannot deny should say to you in the evening after dinner, "Now, Henry, you must get at your home work. Take your Dana, and learn all about the monoclinic minerals tonight. If you get that well done, perhaps there will be time for you to polish a thunder egg before bedtime". What a hideous thing to imagine! Under such compulsion your zeal would be quenched like a hot poker in a rain barrel.

A good part of the charm in your mineral interest is that you can take your minerals or you can leave 'em alone. Sometimes you do the latter, and pay no attention to the subject for weeks, then you see a fine item and become as eager as ever. There is no reproach for the lapse, and your return of interest is purely spontaneous. You take up your hobby again just as a child might resume play. The parallel is close; your side interest does for you exactly what play does for the youngster.

There are poor wights who put every pound of energy they can generate into their jobs; in such slavery they grow old before their time and die in their chains. Any hobbyist could give them priceless advice. To save a fraction of one's vitality for the uses of recreation is thrifty living; one keeps renewed as he goes along, to say nothing of the pleasure enjoyed and the life enriched. Therefore more power to the hobby, so be that the person following it can forget drudgery and play in it as a child plays.

The king of Sweden enjoys doing embroidery. We would pat him on the back and say, "Go to it, Gustaf". It seems slightly wacky for a man, but if it helps him to forget the cares of a

neutral country in a war-torn world we are for it. We would even give a kindly nod to the people who collect match-covers or buttons or blue glass bottles. Maybe there ought to be a limit somewhere. There are men who make a fad of collecting blondes; this, however, is understood to be an expensive pursuit and for various other reasons is not highly recommended. Anyhow minerals are safer.

The wide diffusion of interest in mineral collecting as a form of recreation is due in part to the many lines of approach which lead up to it. Perhaps one liked geology in college, but found it rather too vast for daily use and focussed on the mineral side of it. If one's background is chemistry, he does not even have to cross a line to take up minerals. Then there are people who are geometrically minded; they can imagine forms in three dimensions, and for these the crystallography of minerals is a fascinating lore. It may be admitted, however, that those who take up mineral study for the pure and abstract joys of crystallography are not an overwhelming group. We should come nearer to finding the majority in still another section, those who respond to the aesthetic appeal. These people not only admire the beauty of nature, they yearn to improve on the Lord's handiwork by skilful lapidary treatment of their own. "Pebble-polishers", the would-be-scientific collector calls them, with mild disdain; not to be outdone in scorn they regard him as just plain squirrelly.

It may be that all of us rock-hounds inherited our interest in some degree. Our remote and hairy ancestors who lived in caves were great collectors, showing keen discrimination. They prized their jade as much as any sophisticated modern, albeit they worked it up somewhat differently. Mounted with

thongs on the end of a stick it was a great soother and persuader. The earliest arsenal of democracy was in their quarries of flint and obsidian. So in our prowlings after choice specimens do we perhaps show vestiges of an ancient racial trait? The city officials and other aborigines of Grants Pass, Oregon, including many shapely young women, dress up in animal pelts and go to have their pictures taken in the Oregon Caves. This is the true Neolithic urge, and it may be, friends, it may be that this is whither we are all tending.

Let us come to sober agreement on this anyhow, that racial inheritance has conditioned us for enjoyment of sunshine, motion in the fresh air, and the patterns of cloud shadows moving over rounded

hills. The vast harmony of nature brings harmony to vexed minds. Working over the ledges where choice exposures are found we can forget all about Hitler and the New Deal and income taxes and the price of meat. The burdens are off us, we breathe freely and grow an inch taller. It is this tonic of nature which reinforces our hobby interest and at the same time reconditions us for daily living. In the office, the shop, or the home we are artificial, paltry and compromising; we dull vitality with poisoned air and wear down the spirit with human frictions. But in the field, with pick and rock-sack, we are kings and queens living royally; the air is wine, the sunshine is a benediction, pettiness falls away and the big, round world is ours.

Questions and Answers

Ques. "Can you locate Zinnwald for me? This locality is sometimes stated to be in Bohemia and also in Saxony. In which province is it?" A. D., New York City.

Ans. There are two Zinnwalds and both are noted mineral localities (each has tin mines). One is in the southern part of Saxony on the northern side of the Erzgebirge; the other is in the northern part of Bohemia on the southern side of the Erzgebirge. Erzgebirge (Ore Mountains) separates Saxony (Germany) from Bohemia (Czechoslovakia).

Ques. "Has ROCKS AND MINERALS ever printed articles on U. S. Possessions?" T. M. Q., St. Louis, Mo.

Ans. Articles on Alaska, Canal Zone, Guam, Hawaii, and Puerto Rico have been printed in ROCKS AND MINERALS. These articles are listed in the "Price List of Back Numbers of ROCKS AND MINERALS", recently issued. A 3c stamp secures a copy of the price list.

Ques. "What does flos ferri mean?" R. T., Lansford, Penn.

Ans. The words come from the Latin and mean "flower of iron" because the mineral is so common in beds of iron ore.

Ques. "Can you tell me what vermiculite is and what it is used for? I have looked in all my books and can't find a thing about it". F. W. W., La Canada, Calif.

Ans. Vermiculite is the name given to a group of micaceous minerals that are closely related to the chlorites but varying somewhat widely in composition. They are alteration products chiefly of the micas (biotite, phlogopite, etc.) and retain more or less perfectly the micaceous cleavage. The laminae in general are soft, pliable, and inelastic; the luster pearly or bronze-like; and the color varies from white to yellow and brown. When heated to redness the mineral exfoliates and twists itself up like a worm, hence its name which comes from the Latin *vermiculari*, to breed worms. The property of exfoliation is most remarkable in vermiculites, some varieties exfoliate or expand to about 15 times their original volume. This exfoliated mass becomes an excellent insulating material for steam pipes, refrigerating equipment, wall board, etc. The vermiculite group of minerals include culsageite, dudleyite, ballite, jefferisite, kerrite, lennillite, maconite, philladelphite, vaalite, and vermiculite. See "Notes on the mineral Vermiculite", by Ben Hur Wilson, ROCKS AND MINERALS, June, 1933, p. 77.

What is your specialty—crystals, gems, rocks, ores? Our dealers have them all and all of good quality at attractive prices.

SOUTHERN CALIFORNIA LOCALITIES

By JACK SCHWARTZ

656 South Hendricks Ave., Los Angeles, Calif.

7. Last Chance Canyon.

On Kane Dry Lake is a small settlement known as Saltdale. It is in the northeast corner of Kern County and in my mind is not important at all but for the fact that it is just across the road from the entrance to Last Chance Canyon.

This canyon is visited by thousands of collectors and sightseers every year. Not only is the $5\frac{1}{2}$ mile drive into the canyon scenic, but the extensive seismotite deposits that are being worked here are worth seeing. The seismotite is used exclusively for Dutch Cleanser.

In the good old days, prospectors worked their placer claims in Last Chance Canyon for gold. Some still try to find this precious metal and have added, as a sideline, the business of selling mineral specimens. Petrified wood is quite common here and one fellow made himself a crude cutting and polishing outfit on which he polishes the ends of petrified limbs and thus scrapes together his daily bread.

A deposit of opal in rhyolite was once worked but the yield was probably not sufficient, so this erstwhile individual allows you to work his claim for a small charge. Most of the material collected are tiny chips of the opal in huge pieces

of rhyolite, however, some of the opal do have lots of fire. According to Hilton (1942) geodes of quartz, calcite, and some zeolites also occur in the opal deposit.

A great deal of the petrified palm seen in Southern California collections come from Last Chance Canyon. There was a time when a collector could actually find a specimen of this beautiful wood, but since palm wood has become so popular, it's like trying to find the Italian navy. Miners, who used to toss the wood upon the dumps, now try to sell it to dealers and visiting collectors.

The author, along with Arnold Mallis and Eddie Becker, touring out of the way spots in the canyon, came upon a small, petrified forest. Strewn over the area were many pieces of opalized wood. Later we found hundreds of singular specimens of palm roots. Small pieces of other types of wood were also taken.

Chalcedony is common throughout the canyon, but none that the author examined were good enough to consider agate or otherwise.

Literature.

Hilton, J.

1942. *Opal hunters in Last Chance Canyon*. Desert Mag. 5 (7): 14-16.

COLLECTORS' KINKS

Petrified Wood Display

Petrified wood mounted upon a piece of highly polished ordinary wood makes a nice display. If possible, have

the ordinary wood of the same type as was the original petrified wood. Limb sections make the prettiest display.

Jack Schwartz.

JOHN THOMAS VLISMAS

Feb. 12, 1895—April 4, 1943

One of the most colorful figures in mineralogical circles of the East and personally known to hundreds of collectors, John Thomas Vlismas, of New York City, is dead. He died at his home at 97 Hilltop Acres, Yonkers, N. Y., on Sun., April 4, 1943. Death followed over exertion in his Victory garden due to a cardiac disorder. He was 48 years old.

John the Greek, or John the Wrestler, as he was intimately known to many of his friends, was born in Ithaca, Greece, on Feb. 12, 1895. When 14 years old, he came to America.

Mr. Vlismas was a stone craftsman to the nth degree. His specialty was the making of ornaments which were often highly intricate in design and required great patience and artistic skill—these would be fashioned out of various minerals as onyx, malachite, petrified wood, agate, labradorite, etc., etc. Some of the "mineral pictures" which he made out of thousands of pieces of highly colored minerals that had been cut out into most bewildering shapes, then assembled, cemented, and polished, staggered the imagination!

Mr. Vlismas was a tall, broad shouldered and good looking man. His heart was as big as his body! Generous to a fault, he was forever passing out fine specimens to friends or instructing them how to cut and polish minerals. No matter what hour of the day one would visit his shop (at 244 E. 77th St., New York City), there would be found at least one collector receiving instructions or walking out with an armful of minerals. How he ever found time to do his work was a mystery! Many of the well-known amateur lapidaries of the East today, received their training in the shop of John Vlismas.

For his stock Mr. Vlismas imported gem-quality minerals by the ton. Canada, Labrador, Mexico, Argentine, Brazil, Chile, Uruguay, France, Greece, Rumania, India, South Africa, and many other countries (in

addition to many states of the Union), sent some of their finest minerals to John Vlismas. Prior to his marriage, he made no effort to save any of his choicest specimens, but after marriage, and especially after his son's birth (who was the apple of his eye), Mr. Vlismas began to set aside the best polished specimens he ran across. He vowed that when Louis Thomas reached manhood, he (Louis) would have the finest polished mineral collection in the world. Louis Thomas is now 2 years of age and his collection, which numbers 50 specimens, is of such high quality that it would make many a curator's heart flutter.

Five years ago Mr. Vlismas put on the market the "Stonecraft Cutting and Polishing Machine" that had been built according to his plans and specifications. Quite a number of these machines were sold—some of the foremost universities and museums were purchasers.

Through the efforts of Mr. Vlismas who supplied all notes and demonstrated how the work was done, three very important articles were prepared for **ROCKS AND MINERALS** by H. L. Perdue. These were "Slicing of Stone" (appeared in August, 1937); "Grinding and polishing a sphere" (in the October, 1937 issue); and "What to expect when grinding and polishing minerals" (in the January, 1938, issue).

Mr. Vlismas was a member of many mineral clubs among whom are the New York Mineralogical Club, New Haven Mineral Club, New Jersey Mineralogical Society, and the Rocks and Minerals Association (a member since July 1, 1930).

Mr. Vlismas is survived by his widow, Mrs. Josephine Vlismas, and son, Louis Thomas, to whom the Rocks and Minerals Association extend their deepest sympathy.

Temporarily, at least, Mrs. Vlismas is continuing the business.

Bales New President of the American Ceramic Society

C. E. Bales, Vice-President of the Ironton Fire Brick Co., Ironton, Ohio, was elected President of the American Ceramic Society at their 45th Annual Meeting held in Pittsburgh, Pa., on April 19, 1943.

Mr. Bales served as President of the Ohio Ceramic Industries Association during the past

two years, is a director of the American Refractories Institute, and a member of American Foundrymen Association, American Institute of Mining and Metallurgical Engineers, American Society for Testing Materials, the Mineralogical Society of America, and the Rocks and Minerals Association.

JOHN VLISMAS

The death on Sunday, April 4, 1943, of John Vlismas, stonemason, marked the passing of one of the most talented and remarkable men that it has ever been my good fortune to know. Most readers of this magazine knew Mr. Vlismas principally through the fact that he was the foremost artistic worker in stone of the present period. But to those who knew him personally, he was far more than a great artist and craftsman. He was a man whose sterling qualities of character made a deep and lasting impression and whose sincerity, honesty, and patriotism made him a most valued and admired friend.

A few years ago, after seeing the name, "John Vlismas, Stonemason", in an advertisement in *ROCKS AND MINERALS*, I decided to visit his shop at 244 East 77th Street. Those who have been there will recollect that the shop was similar in general in outside appearance to others in the vicinity, except that the show window, instead of being filled with fruits and vegetables, had in it some large Brazilian agates and some groups of amethyst crystals and other interesting rocks.

Inside was Mr. Vlismas with his sleeves rolled up, hard at work over a polishing wheel, finishing a base for a fountain pen set. It appeared that he had quite a large business with the well-known Fifth Avenue houses in repairing the ornamental stone portion of expensive sets of this nature which happened to be broken or damaged through accident. Moreover, he was the maker of exquisitely designed and executed desk-sets, boxes, lighters, etc., of white marble inlaid with lapis lazuli, malachite, and other ornamental colored stones. Many of these articles were afterwards seen at Dunhill's store on Fifth Avenue. Besides that, Mr. Vlismas was the manufacturer of a lapidary machine for amateurs, and on Saturday mornings he held classes to teach the cutting and polishing of ornamental stones to the persons who had bought his machines.

John was a large, bluff, hearty man, as honest as the day is long—in fact, too honest to cater to anyone else's opinions. He always said exactly what he thought, and for this reason it was not easy to get acquainted with him. However, after talking with him a little while, I began to realize that he was indeed an unusual character. He was totally independent, caring nothing at all of anybody else's opinions or what they thought, but his own opinions were so honest and straight-forward and so based on right thinking that in the end this only gained him more and better friends.

As we got to know John better, both my wife and I got to paying visits to his place everytime we came to New York, and the reason we went to see him was that we had learned he was an entirely unusual character

and one who was extremely well worth knowing.

He was born in Greece and in his early days was in the Greek Merchant Marine. Later he was a professional wrestler, but for years he had been engaged in his recent business of artistic work in ornamental stones. And he really was an artist. He could paint and draw pictures that are second to none, but the most marvelous thing is that he could translate these paintings into stone mosaics. Two of these are masterpieces. One, called "Aurora", is done in all the colors of an exquisite oil painting and looks very much like one at a distance, but is actually made of some 27,000 small pieces of stone of every necessary color, all inlaid to form the picture. The other is an inlay of a shepherd and his goat. Both are now the property of the Braeher family in Chatham, New Jersey.

An index to the character of Vlismas may be had from the fact that a few years ago, when he met some business reverses, he was unable to pay his rent on his place of business, but the owner allowed him to remain on until he had become about \$1,000 in debt and wanted him to remain longer, but Vlismas refused to do so, feeling that he was imposing on the landlord. Soon his fortunes changed, and he began to make enough to live on, and the first thing he did was to pay back every cent of the rent, denying himself every comfort and necessity until he got all the rent paid back, despite the fact that he had moved away and that there was no legal way for the former landlord to collect. John was simply the kind of fellow who wanted to do exactly what was right and who would never be happy unless he felt he was doing so.

During the past two years, the pride of John's heart was his infant son, little Louis. The last time I was in his shop he showed me a fat envelope full of war bonds for little Louis, and I found that ever since the war started he had put every cent he could spare into Government stamps and bonds, going at this proposition in the same way that he did in paying off the rent that he owed, as he felt that he had an urgent duty to do all he possibly could to help his adopted land. John loved stones so well he felt that his boy would have to love them too, so he formed a marvelous collection for the youngster, and he always took great pleasure in showing this collection to all his visitors and telling them how much his son was going to enjoy them.

I know that everyone who has ever met John Vlismas will extend full sympathy to his family in their present bereavement and will always remember him as an inspiration.

—J. S. HATCHER
Brigadier General, U. S. A.

JAMES G. MANCHESTER, JR.

James G. Manchester, Jr., first vice-president and general manager of the New York State Safe Deposit Association, and manager of the safe deposit department of the Central Savings Bank, New York City, died April 4, 1943, at his home in Maywood, N. J. He was 47 years old.

Mr. Manchester was born in Fall River, Mass., and was educated at Trinity School and New York University, both in New York City.

In his early youth he was a constant attendant on field trips of the New York Mineralogical Club but he never became famous as a collector as has his illustrious father.

He is survived by his wife, Mrs. Harriet Manchester, a son, James G. Manchester 3d, and his father, James G. Manchester, to whom is extended the deepest sympathy of the Rocks and Minerals Association.

ECONOMIC MINERAL MAP OF CALIFORNIA

No. 4—TUNGSTEN

By OLAF P. JENKINS

The Tungsten Map is the fourth in a series of economic mineral maps (No. 1—Quick-silver; No. 2—Oil and Gas; No. 3—Chromite) prepared under the direction of Olaf P. Jenkins, Chief Geologist of the California State Division of Mines.

The base of the map is a one-half reduction of the large Geologic Map of California prepared under the direction of Dr. Jenkins and published by the Division of Mines in 1938; the geologic contacts and symbols appear on this reduced sheet. Red spots, representing a four-fold classification, indicate locations of tungsten properties as follows:

- A: Properties that have shipped more than 1,000 short tons of 60 per cent WO_3 .
- B: Properties that have shipped between 100 and 1,000 tons.
- C: Properties that have shipped between 0 and 100 tons.
- D: Properties with no recorded production at the time the map was prepared.

Properties of Classes A, B and C are numbered on the map, and listed by name; properties of Class D are shown on the map by red spots, but are not listed by name. A complete tabulation of deposits, including those of Class D, will be published in a forthcoming issue of the *California Journal of Mines and Geology*. Copies of the map may be obtained for \$0.60 (plus tax) at our office, Ferry Building, San Francisco; or at the following branch offices: State Building, 217

W. 1st Street, Los Angeles; 401 State Office Building, Sacramento.

Much valuable information is to be found in the margins of the map: (1) a report on the economic and geologic aspects of tungsten in California, including history of production, uses, price, government specifications, tenor of ore, treatment of ore, chemical tests for tungsten, table of tungsten minerals, characteristics of tungsten mineralization, geologic processes and history, and distribution of tungsten in the state; (2) a list of the principal tungsten properties (classes A, B and C); (3) acknowledgments, showing published and unpublished sources of data; (4) legends; (5) charts of production by countries of the world, states of the Union, and counties of California, as well as comparative curves of world production, U. S. consumption and production, and California production; (6) chart showing uses of tungsten; (7) chart showing mineral production of California; (8) small state map showing major rock units and their significance to exploration for tungsten; (9) map and section showing a typical contact-metamorphic deposit of scheelite (Pine Creek mine); (10) generalized chart showing geologic events in the Sierra Nevada and Coast Ranges.

This map should be invaluable to geologists, engineers, prospectors, and government agencies interested in increasing the supply of tungsten for the present war needs.

Mr. Manchester Addresses

The spacious hall in the Chamber of Commerce Building, St. Petersburg, Fla., was filled to overflowing on Friday night, March 12, 1943, when the St. Petersburg Shell Club held a meeting. The guest speaker was Mr. James G. Manchester, the distinguished mineral collector, whose main subject was "Collecting Agatized Corals in Hillsborough Bay, Tampa, Fla.," illustrated with colored slides. Colored slides of many gem minerals were also shown and some very attractive agatized corals from

St. Petersburg Shell Club

Mr. Manchester's collection were on display.

Mr. Manchester, whose summer home is in Hampton Bays, L. I., N. Y., spends his winters in St. Petersburg, Fla. He is widely known in mineralogical circles. His popularity as a speaker is due to his pleasing personality and his method of presenting a subject which is both instructive and entertaining so that his lectures are always well attended. This was the fourth annual address that he has given before the St. Petersburg Shell Club.

Clubs Affiliated With the Rocks and Minerals Association

ARIZONA

Mineralogical Society of Arizona

Geo. G. McKhann, Sec., 909 E. Willetta Street, Phoenix.

Meets at the Arizona Museum in Phoenix on the 1st and 3rd Thursday of each month.

CALIFORNIA

East Bay Mineral Society

Miss Nathalie Forsythe, Sec., 1719 Allston Way, Berkeley.

Meets on the 1st and 3rd Thursdays of each month (except July and August), at 8:00 p.m., in the Lincoln School Auditorium, 11th and Jackson Sts., Oakland.

Northern California Mineral Society, Inc.

Mrs. Bernice V. Smith, Sec., 1091 Bush St., San Francisco.

Meets on the 3rd Wednesday of the month at the Public Library, San Francisco, at 8:00 p.m.

Pacific Mineral Society

Margaret Cotton, Sec., 2129—9th Ave., Los Angeles.

Meets on the 2nd Friday of each month at 6:30 p.m., at the Hershey Arms Hotel, 2600 Wilshire Blvd., Los Angeles.

Southwest Mineralogists

Dorothy C. Craig, Corres. Sec., 4139 S. Van Ness Ave., Los Angeles.

Meets every Friday at 8:00 p.m., Harvard Playground, 6120 Denker Ave., Los Angeles.

COLORADO

Canon City Geology Club

F. C. Kessler, Sec., 1020 Macon Ave., Canon City.

Meets on the 1st and 2nd Saturdays of each month at 9:00 a.m. in the High School Building, Canon City.

CONNECTICUT

Bridgeport Mineral Club

Miss Georgianna Seward, Sec., 2859 Main St., Bridgeport.

Meets in the Bridgeport Public Library on the 3rd Monday of the month.

Mineralogical Club of Hartford

Miss Gladys L. Gage, Secretary, 239 Newbury St., Hartford.

Meets the 2nd Wednesday of each month, at 8:00 p.m., at 249 High St., Hartford.

New Haven Mineral Club

Mrs. Lillian M. Otersen, Sec., 16 Grove Place, West Haven.

Meets on the 2nd Monday of the month at the Y. W. C. A. on Howe St., New Haven.

IDAHO—OREGON

Snake River Gem Club

Frank S. Zimmerman, Sec., Payette, Idaho.

Meets alternately in Payette, Idaho, and Ontario, Oregon, (two small cities on the Snake River) on the 3rd Tuesday of every month.

ILLINOIS

Junior Mineral League

William Dacus, Sec., Morgan Park Junior College, 2153 W. 111th St., Chicago.

MAINE

Maine Mineralogical and Geological Society

Miss Jessie L. Beach, Sec., 6 Allen Avenue, Portland.

Meets last Friday of the month at 8 p.m., at the Northeastern Business College, 97 Danforth Street, Portland.

MASSACHUSETTS

Boston Mineral Club

Miss M. Gertrude Peet, Sec., 8 Willard St., Cambridge.

Meets on the 1st Tuesday of the month at 8:00 p.m., at the New England Museum of Natural History, 234 Berkeley St., Boston.

Connecticut Valley Mineral Club

Mary E. Flahive, Secretary, 96 South St., Florence

Meets on the 1st Tuesday of each month at 8 p. m. at various institutions in the Connecticut Valley.

MISSOURI

National Geologist Club

Mrs. D. P. Stockwell, Pres., Mt. Olympus, Kimmswick.

NEVADA

Reno Rocks and Minerals Study Club

Mrs. Rader L. Thompson, Sec., Box 349, R2, Reno.

Meets on the 1st Wednesday of each month, at 7:30 p.m., at the Mackay School of Mines, Reno.

NEW JERSEY

Newark Mineralogical Society

Louis Reamer, Secretary, 336 Elizabeth St., Orange.

Meets on the 1st Sunday of the month at 3 p.m. at Junior Hall, corner Orange and North 6th Streets, Newark.

New Jersey Mineralogical Society

G. R. Stilwell, Sec., 1023 W. 5th St., Plainfield.

Meets on the 1st Tuesday of the month at 8 p.m. at the Plainfield Public Library.

NEW MEXICO

New Mexico Mineral Society

R. M. Burnet, Sec.-Treas., Carlsbad.

Society of Archaeology, History and Art Carlsbad.

NEW YORK**Chislers, The**

Miss Evelyn Waite, Sponsor, 242 Scarsdale Road, Crestwood, Tuckahoe.

Queens Mineral Society

Mrs. Edward J. Marcin, Sec., 46-30—190th Street, Flushing.

Meets on the 1st Thursday of the month at 8 p.m. at 8501 - 118th St., Richmond Hill.

PENNSYLVANIA**Thomas Rock and Mineral Club**

Mrs. W. Hersey Thomas, Pres., 145 East Gorgas Lane, Mt. Airy, Philadelphia.

Meets on the 3rd Friday of each month, at 8:00 p.m., at the home of its president, Mrs. Thomas.

VERMONT**Mineralogical Society of Springfield**

Victor T. Johnson, Sec., 11 Elm Terrace, Springfield.

Meets on the 3rd Wednesday of each month at 8:00 p.m. at the homes of members.

WISCONSIN**Wisconsin Geological Society**

Milwaukee Public Museum, Milwaukee, Wisc.

Meets on the 1st Monday of each month at 8:00 p.m., at the Public Museum in Milwaukee.

Collectors' Tales

HE WAS NEVER SEEN AGAIN!

Some few years ago the Rocks and Minerals Association was conducting an outing at a southeastern New York locality. During the late morning an "amateur" collector found a large size mass of rock (about 10 lbs. in weight) on which were some unusual calcite crystals, a rare find at the locality. The collector, not knowing what he had found, brought the specimen to me for identification. I recognized it but instead of telling him immediately what it was (he was very evasive as to where it had been found which rather annoyed me and he was not even a regular member of the group), I made believe the specimen

puzzled me and sent him to a collector who was not far off. This other collector was one of those "know it all" individuals and I was curious to learn what he would call the specimen. To my chagrin I heard him say, "Show it to Zodac, he is the expert on the minerals of this mine".

The amateur came back to say breathlessly, "He can't identify it either" and then, without waiting for me to reply, he placed the specimen under his coat, turned around and practically ran out of the quarry and was never seen again.

Peter Zodac.

R & M—A Good Nerve Tonic!

Editor R & M:

Will you allow a new subscriber to tell you why he never subscribed to your magazine before? Truthfully, I never knew there was a ROCKS AND MINERALS until I happened to see a copy in Jack's Rock Shop in San Diego, Calif. Just the leafing through it convinced me I was in need of such a magazine to aid me as a collector. I have found valuable information in it, been highly entertained in reading its fine articles, and think that ROCKS AND MINERALS is a good nerve tonic to take after hard busy days. ROCKS AND MINERALS also helps me to forget the world's troubles

for a while, which is so important these days in order to keep fit.

So I for one shall always be grateful for finding your magazine. I am also proud of being a member of the Rocks and Minerals Association and will scatter "chips of praise" where ever I can. You may count me as one of your supporters from now on.

I believe it to be the duty of mineral collectors to promote the interest of their friends. I make the motion that each one of us obtain a new member for the Rocks and Minerals Association.

Ronald K. Miller,
La Jolla, Calif.

April 10, 1943

CLUB AND SOCIETY NOTES

New York Mineralogical Club

American Museum of Natural History, New York, N. Y., Wednesday, March 17, 1943.

Convened: 8:05 P.M. Attendance: 57.

The minutes of the previous meeting were read and approved.

Dr. Pough announced for the Education Committee that his classes in mineral identification have been successfully concluded, the last meeting being devoted to a visit to the Boyce-Thompson Institute collection.

Mr. E. L. Sampter reported the following nominations for next year's officers:

President: Mr. James A. Taylor

1st Vice-President: Dr. F. H. Pough

2nd Vice-President: Dr. Robert B. Sosman

Secretary: Miss Elizabeth Armstrong

Treasurer: Mr. Cecil H. Kindle

Directors: Mr. John N. Trainer, Mr. Gilman S. Stanton

Since no additional nominations by petition had been received, it was announced that the above nominees would be voted upon at the April meeting.

Dr. Pough directed the members' attention to several recent publications of interest, among them being U. S. Bureau of Mines Information Circular No. I. C. 7232 entitled "The Rare Alkalies in New England" by Hess and others.

Mr. Trainer then introduced the speaker of the evening, Dr. A. C. Hawkins, whose subject was "Mineral Collecting in the South-eastern United States". Dr. Hawkins told stories of his collecting experiences at various localities and exhibited specimens. Among many others, he mentioned finding:

Selenite crystals in a marl bank near Vicksburg.

Fluorescent hyalite at Stone Mt., Ga.

Hydroxy apatite crystals in talc about 40 miles N. W. of Atlanta.

Amethyst crystals in N. W. Ga.

Staurolite crystals at various localities in Ga. and Va.

Pyrite cubes in pyrophyllite near Carthage, N. C.

Barite crystals in clay iron stone at Cartersville, Ga.

Ruby corundum and sapphire at several localities in Ga.

Galaxite (a spinel) and alleghanyite (a red olivine) near Sparta, N. C.

Epistilbite in a triassic conglomerate at Culpeper, Va.

A vote of thanks was extended to the speaker.

Mr. Edwin Skidmore of the New Jersey society exhibited an improved ultra violet lamp and many fluorescent specimens.

The meeting was adjourned at 9:45 P.M.

M. Allen Northup, Sec'y.

Los Angeles Lapidary Society

The Los Angeles Lapidary Society, Los Angeles, Calif., is happy to report that in spite of the war and transportation difficulties the attendance at its meetings has held up remarkably well this past year. Only once did it drop below one hundred and nine. DeWitte Hagar, President of the Society, wishes to take this opportunity of publicly thanking the many very fine guest-speakers who made the meetings so interesting. The monthly dinner meetings are held on the first Monday of each month at the Friday Morning Club in downtown Los Angeles.

Mineralogical Club of Hartford

At the annual meeting of the Club held on Wed., March 10, 1943, at Hartford, Conn., the following officers were elected:

President: Ralph F. Hills

Vice-President: Frank P. Rockwell

Secretary: Miss Gladys L. Gage

Treasurer: George P. Robinson

The prevailing restrictions have had their effect on the activities of the Club but we still have a fair attendance at the regular monthly meetings.

Our meeting of March 10th was the 5th anniversary of the meeting at which the Club was organized.

F. P. Rockwell.

New Jersey Mineralogical Society

A regular meeting of the Society was held on Tues., April 6th, 1943, at the Plainfield Public Library, Plainfield, N. J. The guest speaker was Dr. Frederick H. Pough, of the American Museum of Natural History, whose subject was "The Strategic Minerals", illustrated with beautiful slides.

Queens Mineral Society

At the March meeting of the Society, held at the clubroom in Richmond Hill, L. I., N. Y., the following officers were elected:

President—Curt Segeler

Vice-President—Merton McKown

Secretary-Treasurer—Mrs. Edward J. Marcin

At this meeting Mrs. Curt Segeler spoke on "Manganese, one of the Strategic Minerals".

Northern California Mineral Society

At the regular meeting held on Wed., April 21st, 1943, at the Public Library, San Francisco, Calif., Walter W. Bradley, State Mineralogist, was the speaker whose subject was "Use of Color Photography in Geologic and Mineral Field Work". This very interesting talk was illustrated with Kodachrome slides which showed geologic formations and minerals in their natural colors.

Texas Mineral Society

Texas Mineral Society met on April 2nd, with 25 members attending. Prof. Lynch showed sound pictures on formation of Rocks.

We have voted on having a formal meeting on the first Friday of each month, and an informal meeting the third Friday of each month. Each member is to bring a specimen and discuss trips, locations, etc.

The next formal meeting to be held on May 7th. Prof. Lynch will show more sound pictures and J. D. Chalk, Jr., will give us a talk on chemistry and crystal formation.

We would welcome suggestions for getting this Society well organized and especially would we appreciate suggestions from other societies. Please send to Thos. D. Copeland, Pres., 1st National Bank Bldg., Dallas, Texas, or to Mrs. A. L. Jarvis, Sec., 353 W. Jefferson St., Dallas, Texas

Mineralogical Society of Arizona

At its two meetings held on April 1st and 15th, 1943, the Society continued its program on "Determinative Mineralogy". On the 1st, "Blowpiping, Part 1" was featured; on the 15th, "Blowpiping, Part 2".

These courses in determinative mineralogy are proving very popular.

Northern Ohio Guild (American Gem Society)

A regular meeting of the Guild was held on Thurs., April 1, 1943, at Western Reserve University, Cleveland, Ohio. The program consisted of a lecture on the diamond (April birthstone) by Dr. Donner of the University; a talk "Curious lore and legends of the diamond" by Les Bonwell; evaluation of a selection of diamonds by individual members, conducted by H. Fuerst; and a study session under the supervision of E. Countz.

Bibliographical Notes

Minerals and Modern Civilization: By J. Cladius Boyle.

In this very interesting article the author traces briefly the progress made in civilization from the most primitive days of ancient times up to the present. He begins his text by saying "Minerals are the principal material things upon which civilization has moved forward, upon which it continues to build, and without which it could not continue to exist" and ends it with "There is no more important field (minerals) in which young boys and girls can work if they wish to make the most valuable contribution to their own country and to society".

This 5½ page article appeared in the April-May issue of *The Children's Museum News*, issued by The Children's Museum, Brooklyn Ave. and Park Place, Brooklyn, N. Y.

Old and Abandoned Mines of Putnam were Scenes of Great Activity in Years Gone By: By Carlton B. Scofield.

This is a long and most interesting historical article on the old abandoned mines of Putnam County, in southeastern New York. It covers Croft, Todd, Anthony's Nose and other mines—most of which are noted mineral localities. The article (which is to be continued) appeared in the Fri., April 16, 1943, issue of *The Evening Star*. Copies of the issue containing the article may be purchased for 5c; address all orders to *The Evening Star*, Main Street, Peekskill, N. Y.

News Bulletin of the Mineralogical Society of Utah:

The December, 1942, issue (Vol. 3, No. 2) of the *Bulletin* is a most interesting edition.

Of its 78 pages, 64 of them are devoted to the area around Great Salt Lake. Writes Lela P. Lisonbee, Chairman of the Editing Committee in the opening paragraph of the first article "Great Salt Lake".

"Unique on the American continent is Great Salt Lake. Occupying, as it has, such a prominent place in the development of the West, the Utah Mineralogical Society decided to make it the theme for an entire issue of its bulletin. Accordingly, the editorial board decided to go beyond the range of conventional articles which have appeared in past bulletins and include articles on the Lake's history, biology, bacteriology, ornithology, and anthropology, as well as mineralogy and geology. It is the hope of the editorial board that our readers will concur in this decision".

Junius J. Hayes, President of this most active and progressive society, is a member of the R. & M. A. His contribution to the *Bulletin* was "Great Salt Lake and Its Economic Importance" (pp. 11-23).

If copies are available, they may be obtained from the Treasurer, Mrs. C. W. Lockertie, 223 W. 9th South St., Salt Lake City, Utah.

Analysis of Illinois Coals:

One of the important functions of the U. S. Bureau of Mines is the analysis of coal from every coal-mining state and Alaska. These analysis are being published for use of Government officials and the public.

The present report contains 245 pp. and 11 illus. It is published as Technical Paper 641 (of the U. S. Bureau of Mines) and is for sale at 30c by the Superintendent of Documents, Washington, D. C.

R. & M. A. HONOR ROLL

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The following members of the Rocks and Minerals Association are in the armed service of our country. Of the 55 members listed, one is a girl, Miss Eleanor Wales, of Auburn-dale, Mass. If any errors or omissions occur, please call them to our attention. We would also appreciate if members would notify us of their change in rank, etc., so that they may be properly listed.

Though some members are on foreign soil, the Association has suffered no casualties as far as is known.

Albanese, John S. (Navy), Newark, N. J.
Bagrowski, Benedict P. (Pvt., Army), Milwaukee, Wisc.
Bingham, Wm. (Capt., Army), St. Paul, Minn.
Birman, Joseph (Pvt., Army), Seekonk, Mass.
Bondley, Charles J., Jr. (Lt. Col., Army),?
Brixey, Austin Day, Jr. (Navy), New York, N. Y.
Brown, J. Prescott (Maj., Army), Albany, N. Y.
Campbell, Clyde (Pvt., Army), Harrison, Ohio
Cilen, Anthony (Pvt., Army), Hawthorne, N. J.
Cilen, Joseph (Pvt., Army), Hawthorne, N. J.
Connor, J. H. (Navy), Atlanta, Ga.
Crowley, Richard M. (Army), Philadelphia, Pa.
Currier, Frederick, Jr. (Pvt., Army), Meredith, N. H.
Ehrmann, Martin L. (Capt., Army), New York, N. Y.
Fine, Sidney A. (Corp., Army),?
Glasser, Frank (Sgt., Army), Gray, Idaho
Graham, D. P., Jr. (Pvt., Army), Silver Spring, Md.
Grieger, John M. (Pvt., Army), Pasadena, Calif.
Hatcher, J. S. (Brig Gen., Army), Falls Church, Va.

Irvin, A. M. (Army), Dexter, Maine
Jenni, Clarence M. (Maj., Army), Festus, Mo.
Kerridge, P. M. (Lt., Navy), Washington, D. C.
Kessler, Dr. Frank (Army), Peekskill, N. Y.
Knox, Arthur S. (Army), W. Somerville, Mass.
Knox, S. C. (Pvt., Army), Atlanta, Ga.
Kobelt, Theodore W. (Army), Wallkill, N. Y.
Komiakoff, Leo (Lt., Army), Poughkeepsie, N. Y.
Livingston, John L. (Capt., Army), Elizabethtown, Ill.
McFarling, W. L. (Pvt., Army), Lincoln, Nebr.
McKinley, Wm. C. (Army), Peoria, Ill.
Minor, W. C. (Army), Fruita, Colo.
Mixon, Carol (Pvt., Army), Lawrence, Mass.
Molnar, George (Corp., Army), Perth Amboy, N. J.
Newell, Jno. G. (Pvt., Army), Wilson, N. C.
Pancoast, Bennett S. (Pvt., Army), Woodstown, N. J.
Pearl, Richard M. (Corp., Army), Denver, Colo.
Printz, W. Harold (Pvt., Army), Newport, Ore.
Pugsley, Ken (Pvt., Army), Pawling, N. Y.
Randolph, Jack H. (Sgt., Army),?
Raynolds, Dr. A. H. (Army), New York, N. Y.
Sawyer, John A. (Maj., Army), Manhattan, Kans.
Shaub, B. M. (Maj., Army), Northampton, Mass.
Shinkle, J. C. (Maj., Army), Aberdeen, Conn.
Smith, T. L. H. (Pvt., Army), Danbury, Conn.
Sober, Harry (Ens., Navy), Washington, D. C.
Stinger, Ed. (Army),?
Straley, Arthur (Navy),?
Tasman, H. G. (Navy), Nyack, N. Y.
Thompson, Norman (Corp., Army), Chico, Calif.
Wales, Miss Eleanor (Lt., WAACS), Auburndale, Mass.
Watters, Lu (Navy), San Francisco, Calif.
Weight, Harold O. (Sgt., Army),?
Wildzunas, John (Corp., Army), Albany, N. Y.
Yaackel, M. P. (Navy), Claremont, Calif.
Yedlin, Leo Neal (Army), Cedar Grove, Me.

With Our Dealers

World's Minerals, of Oakland, Calif., make their first appearance this month in ROCKS AND MINERALS. They are offering some very fine gold specimens from the famous Mother Lode of California. They also carry a complete line of the famous Mineralights!

Jno. B. Litsey, of Dallas, Texas, is featuring this month a complete fluorescent exhibit. Before offering this exhibit to our readers, Mr. Litsey tried it out on a few of his customers and it went over big. Everyone was delighted with his purchase!

A well-established gem dealer in the metropolitan area of New York City has an attractive proposition to offer amateur gem cutters but. . . . to *New Yorkers only*. Look up the ad (Box M, c/o ROCKS AND MINERALS).

Some very showy minerals are advertised this month by Ward's Natural Science Est., Inc., of Rochester, N. Y. Don't choose. Order one of each!

Hatfield Goudey, of Yerington, Nev., is offering a new selection this month of choice western minerals. Western minerals are very popular with collectors and especially those residing in the East. We bet his molybdenite specimens will go fast!

Another new dealer who appears for the first time in ROCKS AND MINERALS, is the B. & I. Manufacturing Co., of Burlington, Wis. This firm is offering our readers the *Gem Maker*, a complete lapidary equipment (less motor and belt). With this machine installed in your home, you can cut and polish your own specimens. It is a most interesting hobby and it's lots of fun. Get your machine to-day!

Mineral Supply House, of Spokane, Wash., offers our readers this month good type-specimens of some standard minerals to fill gaps in a well-balanced collection. A mighty good idea and it will go over big with collectors!

